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AMENDED IN SENATE AUGUST 2, 2010

AMENDED IN SENATE JULY 15, 2010

AMENDED IN SENATE JUNE 21, 2010

AMENDED IN ASSEMBLY MAY 28, 2010

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CALIFORNIA LEGISLATURE—2009–10 REGULAR SESSION

## **ASSEMBLY BILL**

**No. 2514**

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**Introduced by Assembly Member Skinner**

February 19, 2010

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An act to amend Section 9620 of, and to add Chapter 7.7 (commencing with Section 2835) to Part 2 of Division 1 of, the Public Utilities Code, relating to energy.

### LEGISLATIVE COUNSEL'S DIGEST

AB 2514, as amended, Skinner. Energy storage systems.

Under existing law, the Public Utilities Commission (CPUC) has regulatory authority over public utilities, including electrical corporations, as defined. The existing Public Utilities Act requires the CPUC to review and adopt a procurement plan for each electrical corporation in accordance with specified elements, incentive mechanisms, and objectives. The existing California Renewables Portfolio Standard Program (RPS program) requires the CPUC to

implement annual procurement targets for the procurement of eligible renewable energy resources, as defined, for all retail sellers, including electrical corporations, community choice aggregators, and electric service providers, but not including local publicly owned electric utilities, to achieve the targets and goals of the program.

The existing Warren-Alquist State Energy Resources Conservation and Development Act establishes the State Energy Resources Conservation and Development Commission (Energy Commission), and requires it to undertake a continuing assessment of trends in the consumption of electricity and other forms of energy and to analyze the social, economic, and environmental consequences of those trends and to collect from electric utilities, gas utilities, and fuel producers and wholesalers and other sources, forecasts of future supplies and consumption of all forms of energy.

Existing law requires the CPUC, in consultation with the Independent System Operator (ISO), to establish resource adequacy requirements for all load-serving entities, as defined, in accordance with specified objectives. The definition of a “load-serving entity” excludes a local publicly owned electric utility. That law further requires each load-serving entity to maintain physical generating capacity adequate to meet its load requirements, including peak demand and planning and operating reserves, deliverable to locations and at times as may be necessary to provide reliable electric service. Other existing law requires that each local publicly owned electric utility serving end-use customers to prudently plan for and procure resources that are adequate to meet its planning reserve margin and peak demand and operating reserves, sufficient to provide reliable electric service to its customers. That law additionally requires the utility, upon request, to provide the Energy Commission with any information the Energy Commission determines is necessary to evaluate the progress made by the local publicly owned electric utility in meeting those planning requirements, and requires the Energy Commission to report the progress made by each utility to the Legislature, to be included in the integrated energy policy reports. Under existing law, the governing body of a local publicly owned electric utility is responsible for implementing and enforcing a renewables portfolio standard for the utility that recognizes the intent of the Legislature to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources and the goal of environmental improvement.

This bill would require the CPUC, by March 1, 2012, to open a proceeding to determine appropriate targets, if any, for each load-serving entity to procure viable and cost-effective energy storage systems and, by October 1, 2013, to adopt an energy storage system procurement target, if determined to be appropriate, to be achieved by each load-serving entity by December 31, 2015, and a 2nd target to be achieved by December 31, 2020. The bill would require the governing board of a local publicly owned electric utility, by March 1, 2012, to open a proceeding to determine appropriate targets, if any, for the utility to procure viable and cost-effective energy storage systems and, by October 1, 2014, to adopt an energy storage system procurement target, if determined to be appropriate, to be achieved by the utility by December 31, 2016, and a 2nd target to be achieved by December 31, 2021. The bill would require each load-serving entity and local publicly owned electric utility to report certain information to the CPUC, for a load-serving entity, or to the Energy Commission, for a local publicly owned electric utility. The bill would make other technical, nonsubstantive revisions to existing law. *The bill would exempt from these requirements an electrical corporation that has 60,000 or fewer customers within California and a public utility district that receives all of its electricity pursuant to a preference right adopted and authorized by the United States Congress pursuant to a specified law.*

Under existing law, a violation of the Public Utilities Act or any order, decision, rule, direction, demand, or requirement of the CPUC is a crime.

Because certain of the provisions of this bill require action by the CPUC to implement, a violation of these provisions would impose a state-mandated local program by creating a new crime. Because certain of the bill's requirements are applicable to local publicly owned electric utilities, the bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for specified reasons.

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: yes.

*The people of the State of California do enact as follows:*

1     SECTION 1. The Legislature finds and declares all of the  
2 following:

3     (a) Expanding the use of energy storage systems can assist  
4 electrical corporations, electric service providers, community  
5 choice aggregators, and local publicly owned electric utilities in  
6 integrating increased amounts of renewable energy resources into  
7 the electrical transmission and distribution grid in a manner that  
8 minimizes emissions of greenhouse gases.

9     (b) Additional energy storage systems can optimize the use of  
10 the significant additional amounts of variable, intermittent, and  
11 offpeak electrical generation from wind and solar energy that will  
12 be entering the California power mix on an accelerated basis.

13     (c) Expanded use of energy storage systems can reduce costs  
14 to ratepayers by avoiding or deferring the need for new fossil  
15 fuel-powered peaking powerplants and avoiding or deferring  
16 distribution and transmission system upgrades and expansion of  
17 the grid.

18     (d) Expanded use of energy storage systems will reduce the use  
19 of electricity generated from fossil fuels to meet peak load  
20 requirements on days with high electricity demand and can avoid  
21 or reduce the use of electricity generated by high carbon-emitting  
22 electrical generating facilities during those high electricity demand  
23 periods. This will have substantial cobenefits from reduced  
24 emissions of criteria pollutants.

25     (e) Use of energy storage systems to provide the ancillary  
26 services otherwise provided by fossil-fueled generating facilities  
27 will reduce emissions of carbon dioxide and criteria pollutants.

28     (f) There are significant barriers to obtaining the benefits of  
29 energy storage systems, including inadequate evaluation of the  
30 use of energy storage to integrate renewable energy resources into  
31 the transmission and distribution grid through long-term electricity  
32 resource planning, lack of recognition of technological and  
33 marketplace advancements, and inadequate statutory and regulatory  
34 support.

35     SEC. 2. Chapter 7.7 (commencing with Section 2835) is added  
36 to Part 2 of Division 1 of the Public Utilities Code, to read:

CHAPTER 7.7. ENERGY STORAGE SYSTEMS

2835. For purposes of this chapter, the following terms have the following meanings:

(a) (1) “Energy storage system” means commercially available technology that is capable of absorbing energy, storing it for a period of time, and thereafter dispatching the energy. An “energy storage system” may have any of the characteristics in paragraph (2), shall accomplish one of the purposes in paragraph (3), and shall meet at least one of the characteristics in paragraph (4).

(2) An “energy storage system” may have any of the following characteristics:

(A) Be either centralized or distributed.

(B) Be either owned by a load-serving entity or local publicly owned electric utility, a customer of a load-serving entity or local publicly owned electric utility, or a third party, or is jointly owned by two or more of the above.

(3) An “energy storage system” shall be cost effective and either reduce emissions of greenhouse gases, reduce demand for peak electrical generation, defer or substitute for an investment in generation, transmission, or distribution assets, or improve the reliable operation of the electrical transmission or distribution grid.

(4) An “energy storage system” shall do one or more of the following:

(A) Use mechanical, chemical, or thermal processes to store energy that was generated at one time for use at a later time.

(B) Store thermal energy for direct use for heating or cooling at a later time in a manner that avoids the need to use electricity at that later time.

(C) Use mechanical, chemical, or thermal processes to store energy generated from renewable resources for use at a later time.

(D) Use mechanical, chemical, or thermal processes to store energy generated from mechanical processes that would otherwise be wasted for delivery at a later time.

(b) “Load-serving entity” has the same meaning as defined in Section 380.

(c) “New” means, in reference to an energy storage system, a system that is installed and first becomes operational after January 1, 2010.

1 (d) “Offpeak” means, in reference to electrical demand, a period  
2 that is not within a peak demand period.

3 (e) “Peak demand period” means a period of high daily, weekly,  
4 or seasonal demand for electricity. For purposes of this chapter,  
5 the peak demand period for a load-serving entity shall be  
6 determined, or approved, by the commission and shall be  
7 determined, or approved, for a local publicly owned electric utility,  
8 by its governing body.

9 (f) “Procure” and “procurement” means, in reference to the  
10 procurement of an energy storage system, to acquire by ownership  
11 or by a contractual right to use the energy from, or the capacity  
12 of, including ancillary services, an energy storage system owned  
13 by a load-serving entity, local publicly owned electric utility,  
14 customer, or third party. Nothing in this chapter, and no action by  
15 the commission, shall discourage or disadvantage development  
16 and ownership of an energy storage system by an electrical  
17 corporation.

18 2836. (a) (1) On or before March 1, 2012, the commission  
19 shall open a proceeding to determine appropriate targets, if any,  
20 for each load-serving entity to procure viable and cost-effective  
21 energy storage systems to be achieved by December 31, 2015, and  
22 December 31, 2020. As part of this proceeding, the commission  
23 may consider a variety of possible policies to encourage the  
24 cost-effective deployment of energy storage systems, including  
25 refinement of existing procurement methods to properly value  
26 energy storage systems.

27 (2) The commission shall adopt the procurement targets, if  
28 determined to be appropriate pursuant to paragraph (1), by October  
29 1, 2013.

30 (3) The commission shall reevaluate the determinations made  
31 pursuant to this subdivision not less than once every three years.

32 (b) (1) On or before March 1, 2012, the governing board of  
33 each local publicly owned electric utility shall initiate a process  
34 to determine appropriate targets, if any, for the utility to procure  
35 viable and cost-effective energy storage systems to be achieved  
36 by December 31, 2016, and December 31, 2021. As part of this  
37 proceeding, the governing board may consider a variety of possible  
38 policies to encourage the cost-effective deployment of energy  
39 storage systems, including refinement of existing procurement  
40 methods to properly value energy storage systems.

(2) The governing board shall adopt the procurement targets, if determined to be appropriate pursuant to paragraph (1), by October 1, 2014.

(3) The governing board shall reevaluate the determinations made pursuant to this subdivision not less than once every three years.

(4) A local publicly owned electric utility shall report to the Energy Commission regarding the energy storage system procurement targets and policies adopted by the governing board pursuant to paragraph (2), and report any modifications made to those targets as a result of a reevaluation undertaken pursuant to paragraph (3).

2836.2. In adopting and reevaluating appropriate energy storage system procurement targets and policies pursuant to subdivision (a) of Section 2836, the commission shall do all of the following:

(a) Consider existing operational data and results of testing and trial pilot projects from existing energy storage facilities.

(b) Consider available information from the California Independent System Operator derived from California Independent System Operator testing and evaluation procedures.

(c) Consider the integration of energy storage technologies with other programs, including energy efficiency or other means of reducing electrical demand that will result in the most efficient use of generation resources and cost-effective energy efficient grid integration and management.

(d) Ensure that the energy storage system procurement targets and policies that are established are technologically viable and cost effective.

2836.4. (a) An energy storage system may be used to meet the resource adequacy requirements established for a load-serving entity pursuant to Section 380 if it meets applicable standards.

(b) An energy storage system may be used to meet the resource adequacy requirements established by a local publicly owned electric utility pursuant to Section 9620 if it meets applicable standards.

2836.6. All procurement of energy storage systems by a load-serving entity or local publicly owned electric utility shall be cost effective.

2837. Each electrical corporation's renewable energy procurement plan, prepared and approved pursuant to Article 16

(commencing with Section 399.11) of Chapter 2.3 of Part 1, shall require the utility to procure new energy storage systems that are appropriate to allow the electrical corporation to comply with the energy storage system procurement targets and policies adopted pursuant to Section 2836. The plan shall address the acquisition and use of energy storage systems in order to achieve the following purposes:

(a) Integrate intermittent generation from eligible renewable energy resources into the reliable operation of the transmission and distribution grid.

(b) Allow intermittent generation from eligible renewable energy resources to operate at or near full capacity.

(c) Reduce the need for new fossil-fuel powered peaking generation facilities by using stored electricity to meet peak demand.

(d) Reduce purchases of electricity generation sources with higher emissions of greenhouse gases.

(e) Eliminate or reduce transmission and distribution losses, including increased losses during periods of congestion on the grid.

(f) Reduce the demand for electricity during peak periods and achieve permanent load-shifting by using thermal storage to meet air-conditioning needs.

(g) Avoid or delay investments in transmission and distribution system upgrades.

(h) Use energy storage systems to provide the ancillary services otherwise provided by fossil-fueled generating facilities.

2838. (a) (1) By January 1, 2016, each load-serving entity shall submit a report to the commission demonstrating that it has complied with the energy storage system procurement targets and policies adopted by the commission pursuant to subdivision (a) of Section 2836.

(2) By January 1, 2021, each load-serving entity shall submit a report to the commission demonstrating that it has complied with the energy storage system procurement targets and policies adopted by the commission pursuant to subdivision (a) of Section 2836.

~~(3) The commission may waive the requirements of this subdivision for a specific load-serving entity or group of similarly situated load-serving entities.~~



1 (b) The commission shall ensure that a copy of each report  
2 required by subdivision (a), with any confidential information  
3 redacted, is available on the commission's Internet Web site.

4 2838.5. Notwithstanding any provision of this chapter, the  
5 requirements of this chapter do not apply to ~~an~~ *either of the*  
6 *following*:

7 (a) ~~An electrical corporation that provides electric service to~~  
8 ~~retail end-use customers outside of California and that has 60,000~~  
9 ~~or fewer customer accounts within California.~~

10 (b) *A public utility district that receives all of its electricity*  
11 *pursuant to a preference right adopted and authorized by the*  
12 *United States Congress pursuant to Section 4 of the Trinity River*  
13 *Division Act of August 12, 1955 (Public Law 84-386).*

14 2839. (a) (1) By January 1, 2017, a local publicly owned  
15 electric utility shall submit a report to the Energy Commission  
16 demonstrating that it has complied with the energy storage system  
17 procurement targets and policies adopted by the governing board  
18 pursuant to subdivision (b) of Section 2836.

19 (2) By January 1, 2022, a local publicly owned electric utility  
20 shall submit a report to the Energy Commission demonstrating  
21 that it has complied with the energy storage system procurement  
22 targets and policies adopted by the governing board pursuant to  
23 subdivision (b) of Section 2836.

24 (b) The Energy Commission shall ensure that a copy of each  
25 report or plan required by subdivisions (a) and (b), with any  
26 confidential information redacted, is available on the Energy  
27 Commission's Internet Web site, or on an Internet Web site  
28 maintained by the local publicly owned electric utility that can be  
29 accessed from the Energy Commission's Internet Web site.

30 (c) The commission does not have authority or jurisdiction to  
31 enforce any of the requirements of this chapter against a local  
32 publicly owned electric utility.

33 SEC. 3. Section 9620 of the Public Utilities Code is amended  
34 to read:

35 9620. (a) Each local publicly owned electric utility serving  
36 end-use customers, shall prudently plan for and procure resources  
37 that are adequate to meet its planning reserve margin and peak  
38 demand and operating reserves, sufficient to provide reliable  
39 electric service to its customers. Customer generation located on  
40 the customer's site or providing electric service through

1 arrangements authorized by Section 218, shall not be subject to  
2 these requirements if the customer generation, or the load it serves,  
3 meets one of the following criteria:

4 (1) It takes standby service from the local publicly owned  
5 electric utility on a rate schedule that provides for adequate backup  
6 planning and operating reserves for the standby customer class.

7 (2) It is not physically interconnected to the electric transmission  
8 or distribution grid, so that, if the customer generation fails, backup  
9 power is not supplied from the electricity grid.

10 (3) There is physical assurance that the load served by the  
11 customer generation will be curtailed concurrently and  
12 commensurately with an outage of the customer generation.

13 (b) Each local publicly owned electric utility serving end-use  
14 customers shall, at a minimum, meet the most recent minimum  
15 planning reserve and reliability criteria approved by the Board of  
16 Trustees of the Western Systems Coordinating Council or the  
17 Western Electricity Coordinating Council.

18 (c) Each local publicly owned electric utility shall prudently  
19 plan for and procure energy storage systems that are adequate to  
20 meet the requirements of Section 2836.

21 (d) A local publicly owned electric utility serving end-use  
22 customers shall, upon request, provide the Energy Commission  
23 with any information the Energy Commission determines is  
24 necessary to evaluate the progress made by the local publicly  
25 owned electric utility in meeting the requirements of this section.

26 (e) The Energy Commission shall report to the Legislature, to  
27 be included in each integrated energy policy report prepared  
28 pursuant to Section 25302 of the Public Resources Code, regarding  
29 the progress made by each local publicly owned electric utility  
30 serving end-use customers in meeting the requirements of this  
31 section.

32 SEC. 4. No reimbursement is required by this act pursuant to  
33 Section 6 of Article XIII B of the California Constitution because  
34 a local agency or school district has the authority to levy service  
35 charges, fees, or assessments sufficient to pay for the program or  
36 level of service mandated by this act or because costs that may be  
37 incurred by a local agency or school district will be incurred  
38 because this act creates a new crime or infraction, eliminates a  
39 crime or infraction, or changes the penalty for a crime or infraction,  
40 within the meaning of Section 17556 of the Government Code, or

- 1 changes the definition of a crime within the meaning of Section 6
- 2 of Article XIII B of the California Constitution.

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